1. Which of the following can approximate any function universally (i.e. universal approximators)?

Ans:-Neural Networks

1. In which of the following domains we cannot use neural networks?

Ans:- Image Processing

1. Rearrange the following steps of a gradient descent algorithm in correct order of their occurrence?

Ans:- i – v – iv – iii – ii

1. What is the full form of RNN?

Ans:- Recurrent Neural Network

1. What is plasticity in neural networks?

Ans:- input pattern keeps on changing

1. What is stability plasticity dilemma?

Ans:- system can neither be stable nor plastic

1. Read the following statements:

Statement 1: It is possible to train a network well by initializing all the weights as 0

Statement 2: It is possible to train a network well by initializing biases as 0

Which of the statements given above is true, Choose the correct option?

Ans:- Statement 1 is true while Statement 2 is false

1. Which of the following architecture has feedback connections?

Ans:- Recurrent Neural network

9. In training a neural network, you notice that the loss does not decrease in the few starting epochs. The reason behind it could be

Ans:- Learning Rate is low, Stuck at local minima

10.Which of the following function(s) can be used to impart non – linearity in a neural network?

Ans:- Sigmoid Function, Stochastic Gradient Descent

11.What is Deep Learning?

Ans:- Deep learning is a subset of machine learning in artificial intelligence that has networks capable of learning unsupervised from data that is unstructured or unlabeled. Also known as deep neural learning or deep neural network.

12.What is reinforcement learning?

Ans:- Reinforcement learning is an area of Machine Learning. It is about taking suitable action to maximize reward in a particular situation. It is employed by various software and machines to find the best possible behavior or path it should take in a specific situation. Reinforcement learning differs from the supervised learning in a way that in supervised learning the training data has the answer key with it so the model is trained with the correct answer itself whereas in reinforcement learning, there is no answer but the reinforcement agent decides what to do to perform the given task. In the absence of a training dataset, it is bound to learn from its experience.

13. What Are the Differences Between Machine Learning and Deep Learning?

Ans;- **Machine learning**is a subset of artificial intelligence associated with creating algorithms that can change themselves without human intervention to get the desired result – by feeding themselves through structured data.

**Deep learning** is a subset of machine learning where algorithms are created and function similarly to machine learning, but there are many levels of these algorithms, each providing a different interpretation of the data it conveys. This network of algorithms is called artificial neural networks. In simple words, it resembles the neural connections that exist in the human brain.

14. What is a perceptron?

Ans:- A perceptron is a neural network unit (an artificial neuron) that does certain computations to detect features or business intelligence in the input data.

15. What’s the difference between AI and ML?

Ans:- **Machine learning is the study of computer algorithms that allow computer programs to automatically improve through experience**. Machine Learning is a current application of AI based around the idea that we should really just be able to give machines access to data and let them learn for themselves.

AI:- Artificial Intelligence is the broader concept of machines being able to carry out tasks in a way that we would consider “smart”.